

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

October 28, 2003

TO: Internal File

THROUGH: Karl R. Houskeeper, Environmental Scientist III/Inspector, Team Lead

FROM: Jerriann Ernstsens, Ph.D., Environmental Scientist/Biology.

RE: 2003 Midterm Review, Utah American Energy, Inc., Horse Canyon Mine, C/007/013, Task ID #1750

SUMMARY:

The Division is required to review each active permit during its term, in accordance with R645-303-211. A Midterm Review takes place at the midpoint of the permit term (November 6, 2003 for the Horse Canyon Mine) and covers pertinent elements. The Division is currently conducting the Midterm Review for the Horse Canyon Mine. The pertinent element chosen for review that focuses on biology is the following:

A review to ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program, which have occurred subsequent to permit approval (One area of emphasis is to ensure compliance with the U. S. Fish and Wildlife Windy Gap Process).

TECHNICAL ANALYSIS:

OPERATION PLAN

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

TECHNICAL MEMO

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

Adverse effects of mining on water quantity to the Colorado River drainages do affect four Colorado River endangered fish species (Colorado pikeminnow, humpback chub, bonytail chub, and razorback sucker). The USFWS considers water depletion to the Colorado River drainage as a potential jeopardy to these endangered fish. Water users may be required to mitigate if the overall water consumption is greater than 100 acre-feet per year.

The Permittee is required to address possible adverse affects to these four fish species by first calculating the amount of water used by all mining operations and explorations. The “Windy Gap Process” provides a guideline of parameters necessary to calculate overall water consumption for coal mines. The Permittee may obtain the “Windy Gap Process as it Applies to Existing Coal Mines in the Upper Colorado River Basin” (Discussion Paper) from the USFWS (801-975-3330). This discussion paper provides descriptions of equation parameters and guidelines for coal operators to follow. In brief, consumption estimates must at least include the following:

- Mining consumption
- Ventilation consumption
- Coal producing consumption
- Ventilation evaporation
- Sediment pond evaporation
- Springs and seep effects from subsidence
- Alluvial aquifer abstractions into mines
- Alluvial well pumpage
- Deep aquifer pumpage
- Postmining inflow to workings
- Coal moisture loss
- Direct diversions

The Permittee plans to provide all equations and justifications with supporting documentation leading to the overall sum of water depletions/additions for all mining operations and explorations at Lila Canyon (R645-301-322; -301-333). The Permittee will submit all requested information with the forthcoming Lila Canyon amendment.

Findings:

Information provided in the application is considered adequate to meet the minimum Fish and Wildlife Information section of the Operation Plan regulations. The Division reminds the Permittee, however, that the Permittee must provide all equations and justifications with supporting documentation leading to the overall sum of water depletions/additions for all mining operations and explorations with the Lila Canyon amendment.

RECOMMENDATIONS:

Approve the Midterm Review.